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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/310,508	05/12/1999	THOMAS W. LYNCH	THS003	8928

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 04/01/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/310,508

Applicant(s)

LYNCH, THOMAS W.

PRG

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 20-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to amendment filed 02/13/04. Claims 1-50 remain pending of which 20-50 are withdrawn from consideration and claim 1-19 are set forth for examination.
2. In regards to amendments to claim filed 02/13/04, it is noted that in accordance with 37 CFR 1.530 (e) ("Status of claims and support for claim changes"), whenever there is an amendment to the claims pursuant to paragraph (d) of this section, there MUST also be supplied, on pages separate from the pages containing the changes, the status (i.e., pending or canceled), as of the date of the amendment, of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes to the claims made by the amendment paper (see MPEP 2234). In this case, an explanation of the support in the disclosure of the patent for the changes to the claims made by the amendment paper is required.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, claim clause "via a communication link may be non-secure" raises uncertainty as to whether the communication link is secure or not. Further, in regards to claim clause "wherein the respective actions differ from the respective input to mask content of the respective input", it is uncertain what is masking the content of the input.
5. The subject matter in relation with claim limitation "a plurality of symbiotic partners communicatively coupled with one another via a secure communication link, each of the plurality of symbiotic partners having an instance of a managed resource" is described in applicant's specification as prior art (see disclosure page 2, lines 13-page 3, line 11). This is may be taken as being available as prior art against the claims see MPEP §2129 and 1.131.
6. Claim 1 recites the limitation "the respective input" in lines 7-9, further "the each other of the symbiotic partners" in lines 12-14. There is insufficient antecedent basis for this limitation in the claim.

7. Quotation of 35 U.S.C. §103(a), which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kontothanassis et. al. (Kontothanassis) U.S. Patent No. 6,341,339 and Slaughter U.S. Patent No. 6,058,400 in further view of YANAI et. al. (Yanai) U.S. Patent No. 5,742,792.

Regarding claim 1, Kontothanassis teaches substantial features of the invention as claimed (Figs. 1-3), teaching a system/method comprising;

a plurality of nodes (110) ("symbiotic partners") communicatively coupled with one another via a communication link (120), each of the plurality of symbiotic partners having a respective managed resource (140, 150) (col 1/lines 59-col 2/line 8 and col 3/line 36-43)

at least two symbiotic partners receiving from a ("local") user input affecting a respective managed resource (col 2/lines 9-21);

the at least two symbiotic partners producing respective actions (e.g. modifying) based on the input from the user affecting respective managed resource and storing the input from the user affecting respective managed resources (col 2/lines 12-41, 57-59);

each of the at least two symbiotic partners transmitting respective actions to the each other of the plurality of the symbiotic partners (col 2/lines 12-15)

the each other of the symbiotic partners receiving the respective actions from the each of the at least two symbiotic partners for affecting a respective managed resource to maintain coherency of the managed resource (col 2/lines 15-41, providing coherence see col 2/lines 57-59);

wherein when the each other of the symbiotic partners perform ("have used all outstanding") respective actions affecting respective managed resources coherence is maintain, that is all managed resources are the same (col 2/lines 57-59); however Kontothanassis does not explicitly teach where said managed resources include instances;

Slaughter teaches means for maintaining coherence of managed resources (abstract) including instances (col 6/lines 24-30, 42-44), receiving input from a local user affecting a respective instance of the managed resource (col 9/lines 3-8, and col 5/lines 66-col 6/lines 9); however neither Kontothanassis nor Slaughter teach wherein upon a communication link failure between two nodes, communication is prevented or inhibited until the communication link becomes available;

Yanai teaches a system method related to coherency (i.e. data mirroring) among managed resources including at least two nodes, e.g. a primary and secondary node, that are located on a plurality

of computer, including upon a communication link failure between two nodes, communication is prevented or inhibited until the communication link becomes available (col 29/lines 38-45, col 30/lines 29-37, col 26/lines 56-63, Fig. 13B steps 651, 652 and 653);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include in existing functional equivalent system, to include a plurality of nodes having respective instances of a managed resource, as taught by Slaughter, motivation would be to implement a cluster-based managed resource system developed from a conventional managed resource system that is easily adapter to other systems with little or no modifications, as taught by Slaughter. One ordinary skilled in the art would be further motivated to implement a recovery operation where a node will continue without transmitting respective actions to the secondary node for storage until an available communication path between each of the at least two nodes is restored, providing a fault tolerant communication link pair between at least two nodes (i.e. primary and secondary) wherein upon either nodes detecting a communication link failure the primary node may continue operation marking all respective input to be stored on the secondary so that with the link path is restored transferring will begin.

Regarding claim 2, managed resources include data (Kontothanassis: col 1/lines 59-col 2/line 1); each node includes a respective instance of the data (Slaughter: col 6/lines 24-30, 42-44); modification made to an instance is made to the each of the other instances in order to maintain coherence (Kontothanassis: col 5/lines 66-col 6/line 13); transmitting respective actions with communication paths between at least two nodes becomes available (Yanai: col 29/lines 38-45, col 30/lines 29-37, col 26/lines 56-63, Fig. 13B steps 651, 652 and 653).

Regarding claim 3, by monitoring modification operations performed in the system modification made to any instance of data of a managed resource of a given are made to other instances of other nodes in the system maintaining coherency (Kontothanassis: col 2/lines 9-27);

Regarding claim 4, modifications made to any instance of a managed resource (e.g. a home copy) are made to each other instances (e.g. twin copy) of the managed instance to maintain coherence (Kontothanassis: col 2/lines 9-28).

Regarding claim 5, nodes having managed resources including files, data bases, configuration files and source files (Kontothanassis, col 1/lines 30-37).

9. Claims 6-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kontothanassis et. al. (Kontothanassis) U.S. Patent No. 6,341,339 and Slaughter U.S. Patent No. 6,058,400 in further view of Choquier et. al. (Choquier) U.S. 5,774,668.

Regarding claims 6 and 10-12, substantially the same as discussed above, managed resources include an instance, (i.e. an object, in object-oriented programming in relation to the class to which it belongs, as known in the art) (Slaughter: col 6/lines 24-30), managed resources in an client-server environment (Slaughter: col 11/lines 12-17, Internet server providing displayable instances of an object class inherently); however the above teachings do not explicitly teach where the respective instance of a managed resource is a video image;

Choquier teach a plurality of nodes communicatively coupled to one another each having a respective instance of a managed resource (Choquier; col 1/lines 41-44, col 1/lines 66-col 2/line 14, managed an instance of a created object class as known in an object-oriented environment), where each replicated application node within a service group comprises a video image (col 15/lines 13-15, col 19/lines 47-52, Fig. 12).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include instances of managed resources such as video, motivation would be to further extend Kontothanassis applicability to any type of network and Slaughter teachings applicable to any type of file system, motivation would be enable uninterrupted access to any type of service provided by said managed resource by transferring said services from one node to another to increase availability on demand.

Regarding claim 7, instance of the managed resource are modified via an application program (Kontothanassis; col 6/lines 26-30).

Regarding claim 8, system resides in client-server environment (Slaughter: col 2/lines 3-13, suitable for client-server environment col 11/lines 12-15).

Regarding claim 9, said node reside on a client and server node respectively (Slaughter: col 11/lines 12-15).

Regarding claim 13, any of the nodes having managed resources may change their resource and all of these changes are made to the other managed resources (Kontothanassis; col 2/lines 9-41).

Regarding claim 14, actions performed on one node are transmitted to another node (Kontothanassis: col 2/lines 9-41).

Regarding claim 15, actions are stored by the nodes (Kontothanassis: col 2/lines 9-41).

Regarding claims 16-19, actions affecting the managed resource are queried to determine whether they are consistent (Kontothanassis: col 2/lines 42-54, inquiry, step 330, col 6/lines 38-67); actions are time-stamped to determine whether they are consistent (Kontothanassis: col 6/lines 38-67); upon determining that actions are inconsistent these are rejected (Kontothanassis: col 6/lines 38-51).

Response to arguments

10. Applicant argues the Kontothanassis reference does not consider a symbiotic computing system, because the reference is directed to maintaining the coherency of data with shared memory and claim 1 is directed to maintaining coherency of a number of instances of a managed resource which is wholly different from managing a shared memory, the symbiotic partners of claim 1 do not share the managed resource.

In response to the above-mentioned argument, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., maintaining coherency of a number of instances of a managed resource not within a shared memory, where symbiotic partners do not share managed resources such as memory, where maintaining coherency of a number of instances of a managed resource does not include and is wholly different than managing a shared memory) are not recited in the rejected claim(s). This is not a suggestion of any sort. Further, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). According to applicant's specification shared memory is a feature/concern of instant application (see page 3, lines 7-12, page 3, line 21-page 4, line 15), the managed resources are shared (see page 15, lines 19-page 16, line 6, page 21, line 19-21). Arguments that the Kontothanassis reference is directed to maintaining the coherency of data within a shared memory and thereby does not teach claimed invention is not persuasive.

11. Applicant's argument filed 2/13/04 have been fully considered, but not rendered persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".


B. Prieto
TC 2100
Patent Examiner
March 29, 2004